

## **LISTING OF THE CLAIMS**

### **In the Claims:**

1. (Previously Presented) A method of treating a female subject for a fertility condition, said method comprising:  
providing a female subject known to suffer from said fertility condition; and  
modulating at least a portion of the autonomic nervous system of said female subject to increase the sympathetic activity/parasympathetic activity ratio of said subject in a manner effective to treat said female subject for said fertility condition, wherein said method further comprises determining said sympathetic activity/parasympathetic activity ratio at least prior to said modulation and performing said modulation of said at least one portion of the autonomic nervous system based on the determined sympathetic activity/parasympathetic activity ratio.
2. (Original) The method of Claim 1, wherein said modulation is performed during at least one predetermined phase of said subject's menstrual cycle.
3. (Original) The method of Claim 2, wherein said predetermined phase is the luteal phase.
4. (Original) The method of Claim 1, wherein said increase of the sympathetic activity/parasympathetic activity ratio comprises increasing sympathetic activity.
5. (Original) The method of Claim 1, wherein said increase of the sympathetic activity/parasympathetic activity ratio comprises decreasing parasympathetic activity.

6. (Original) The method of Claim 1, wherein said increase of the sympathetic activity/parasympathetic activity ratio comprises increasing sympathetic activity and decreasing parasympathetic activity.

7. (Original) The method of Claim 1, wherein said modulation is localized.

8. (Original) The method of Claim 7, wherein said modulation is localized to at least one pelvic nerve.

9. (Original) The method of Claim 1, wherein said modulation is accomplished by at least applying electrical energy to said at least one portion of said autonomic nervous system.

10. (Original) The method of Claim 9, wherein said application of electrical energy comprises electrically increasing activity in at least one portion of said autonomic nervous system.

11. (Original) The method of Claim 9, wherein said application of electrical energy comprises electrically inhibiting activity in at least one portion of said autonomic nervous system.

12. (Withdrawn) The method of Claim 1, wherein said modulation is accomplished by at least administering an effective amount of at least one pharmacological agent to said subject.

13. (Withdrawn) The method of Claim 12, wherein said at least one pharmacological agent is chosen from: beta agonists, alpha agonists, prednisone, steroids, indirect agents that include norepinephrine, epinephrine, norepinephrine,

acetylcholine, sodium, calcium, angiotensin I, angiotensin II, angiotensin converting enzyme I, angiotensin converting enzyme II, aldosterone, potassium channel blockers, magnesium channel blockers, cocaine, amphetamines, ephedrine, terbutaline, dopamine, doputamine, antidiuretic hormone, oxytocin, THC cannabinoids, and combinations thereof.

14. (Withdrawn) The method of Claim 12, wherein said method comprises combining said at least one pharmacological agent with seminal fluid to provide an at least one pharmacological agent containing seminal fluid mixture and administering said mixture to said subject.

15 – 16. (Canceled)

17. (Original) The method of Claim 1, wherein said method further comprises determining said sympathetic activity/parasympathetic activity ratio at least during said modulation.

18. (Original) The method of Claim 1, wherein said method further comprises determining said sympathetic activity/parasympathetic activity ratio at least following said modulation.

19. (Original) The method of Claim 1, further comprising determining the ratio of Th-1 activity/Th-2 activity.

20. (Original) The method of Claim 1, wherein said fertility condition is infertility.

21. (Withdrawn) The method of Claim 1, wherein said infertility condition is subfertility.

22. (Withdrawn) The method of Claim 1, wherein said fertility condition is early pregnancy loss.

23. (Withdrawn) The method of Claim 1, wherein said fertility condition is spontaneous abortion.

24. (Withdrawn) The method of Claim 1, wherein said fertility condition is an implantation failure.

25. (Withdrawn) The method of Claim 1, wherein said fertility condition is amenorrhea.

26. (Withdrawn) The method of Claim 1, wherein said fertility condition is luteal insufficiency.

27. (Withdrawn) The method of Claim 1, wherein said fertility condition is dysmenorrhea.

28. (Withdrawn) The method of Claim 1, wherein said fertility condition is chemical pregnancy loss.

29. (Withdrawn) The method of Claim 1, wherein said fertility condition is stillbirth.

30. (Withdrawn) The method of Claim 1, wherein said fertility condition is habitual abortion.

Claims 31-38. (Cancelled)

39. (Previously Presented) The method of Claim 7, wherein said modulation is localized to an area of the autonomic nervous system selected from the group consisting of pre-ganglionic nerve fibers, post-ganglionic nerve fibers, ganglionic structures, efferent nerve fibers, and afferent nerve fibers.

40. (Previously Presented) The method of Claim 1, wherein said sympathetic activity/parasympathetic activity ratio is determined by sensing conduction in at least a portion of the sympathetic and/or parasympathetic nervous system.

41. (Previously Presented) The method according to Claim 1, wherein said modulation comprises an implanted electrical energy delivering device.

42. (Previously Presented) The method according to Claim 41, wherein said implanted device is an electrode.

43. (Previously Presented) The method according to Claim 5, wherein said decrease in parasympathetic activity comprises electrical inhibition of at least one portion of the parasympathetic nervous system.

44. (Previously Presented) The method according to Claim 43, wherein said electrical inhibition comprises ablation.

45. (Previously Presented) The method according to Claim 1, wherein said modulation is performed for a period of days.

46. (Previously Presented) The method according to Claim 1, wherein said modulation is performed for a period of weeks.